

VIRGINIA WILDLIFE

DECEMBER 1996

ONE DOLLAR





Director's Column

William L. Woodfin, Jr

The holiday season is here, and you probably are thinking about appropriate gifts for your special friends who love the outdoors. You know all the familiar gifts, such as binoculars, muzzleloading rifles, fishing rods of all varieties, boats, camouflage outfits, footwear, etc. These can all be purchased at the many fine local stores that sell assorted sporting goods. In addition, we have some interesting gift ideas for the outdoors person in your life.

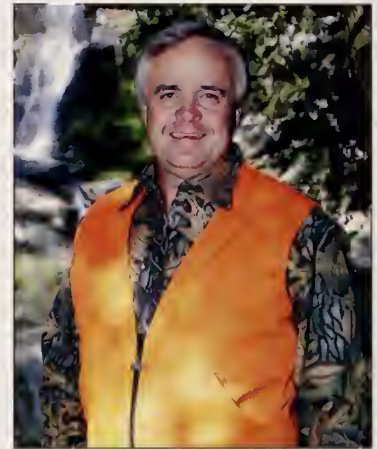
Consider a gift that keeps on giving, our lifetime hunting and fishing licenses. Whether our customers want these for themselves, their children or their grandchildren, this is one of the best ways for outdoor enthusiasts to lead the way into the future. I know that many on your Christmas list would really appreciate these gifts. The cost for a lifetime basic hunting or fishing license is \$250 each and worth every penny. Remember that you can also purchase our yearly hunting and fishing licenses as well.

This year we published *A Guide to Virginia's Wildlife Management Areas*, a reference that provides maps and information about hunting, angling, and wildlife watching on our

Wildlife Management Areas. The 29 Wildlife Management Areas (WMAs) range in size from 429 acres to 33,697 acres. Besides providing habitat for the 674 species of animals that exist in these areas, the Department provides sighting-in ranges for hunters and shooters, field trial areas, wildlife viewing platforms for wildlife watching and managed impoundments for anglers. To obtain a free guide, you'll only need to come by one of our offices.

Once you have a lifetime license, and have maps and information about our WMAs, you will want to have a steady flow of updated information about Virginia's outdoor resources. For only \$10 annually, you can receive 12 issues of the Department's magazine, *Virginia Wildlife*. This magazine will not only provide key insights into various hunting and fishing techniques, but will be a superb educational resource on wildlife habitat and wildlife management. Our stories and photography illustrate the accomplishment of our goal to manage wildlife for the good of the Commonwealth. This kind of information about wildlife and fisheries management in Virginia is available nowhere else. Giving

Yes Santa, there is a Virginia.



Virginia Wildlife as a holiday present will remind folks year round that good things are happening in Virginia. Call 1-800-710-9369 to get those subscriptions started.

Besides the promise of magazine subscriptions, we offer other little stocking stuffers as well. We have posters, calendars, videos, bumper stickers, wildlife watchers guides, beginning anglers kits and more.

If your friends are looking for beautiful mountains, rolling hills, wonderful fresh and salt water fishing, and tremendous opportunities to find wildlife, we hope you'll consider these gift ideas. Thank you for your support. And best holiday wishes from the Virginia Department of Game and Inland Fisheries.



VIRGINIA WILDLIFE



Features

Cover: Ruffed grouse by Len Rue Jr., background by Bill Lea.

- 4 **BOW "Becoming an Outdoors-Woman"**
by Michelle L. Scala
"Becoming an Outdoors-Woman" provides outdoor opportunities for everyone.
- 12 **A Hunter's Snow** by Bob Gooch
For some forms of hunting in the snow is a handicap, but for others it offers advantages.
- 16 **Will it be a Banner Season for Waterfowl?**
by Curtis Badger
With the prospect of good numbers of waterfowl this season, hunters may have one of their best years in recent memory.
- 21 **Late Season Grouse** by Gerald Almy
The "earlier the better" may not apply to hunting grouse.
- 26 **Frozen Frogs and Cold Salamanders** by Joseph C. Mitchell
Animals without fur and feathers show amazing adaptation to winter's cold.

December Journal

- 31 News
- 34 Safety
- 35 December Afield
- 38 Recipes

Dedicated to the Conservation of Virginia's Wildlife and Natural Resources



BONN

"Becoming an Outdoors

by Michelle L. Scala
Photos ©Dwight Dyke

In September, I had the opportunity to attend the seminar of a lifetime. This was the first in a series of "Becoming an Outdoors-Woman (BOW)" workshops sponsored by the Virginia Department of Game and Inland Fisheries' (VDGIF) "Virginia Women in the Outdoors" Program. Held on September 20-22, 1996 at the Holiday Lake 4-H Education Center near Appomattox, Virginia, the rustic but comfortable surroundings reminded me of when I went away to sixth grade camp. The difference was I had more fun at Holiday Lake. Almost 100 women gathered under the guidance of some outstanding instructors and it was truly memorable.

I had attended a wonderful Spring Turkey Hunting seminar sponsored by the VDGIF, so I jumped at the opportunity provided at the Holiday Lake BOW program. The event was a real accomplishment—it included every outdoor activity one could think of. With 26 items to choose from, I looked at the list and said, "I want them all." Unfortunately, I could only pick four sessions, and that was tough. Sessions included Introduction to Firearms & Firearms Safety, Stream Ecology, Archery, Map and Compass, Camping, Boat Safety and Trailering, Canoeing, Dutch Oven Cooking, Small Game Hunting, Game Care and Cleaning, Deer



(Left) Holiday Lake 4-H Educational Center was a beautiful setting for Virginia's first BOW workshop. (Above left) The author, in camouflage, discovers that meeting and making new friends is a large part of the "Becoming an Outdoors-Woman" workshops. (Above right) Hands-on activities are part of each session at the BOW workshops, including Beginning Shotgunning. (Right) With a strong emphasis on safety, this BOW participant is learning how to correctly load a black powder muzzleloader.

"Becoming an Outdoors-Woman" provides outdoor opportunities for everyone.

Woman"



Hunting and Ecology, Backyard Habitat and Wilderness Survival. More categories included Basic Fishing, Basic Fly-fishing and Bow Fishing. Others included Beginning Shotgunning, Beginning Muzzleloading and Beginning Pistol.

My choice of sessions started with firearms safety, because one can never get too much training in firearms. Sue Clark of the Omaha, Nebraska Police Department provided a thorough and interesting look at firearms safety and nomenclature. She let each of the students experience the safe and correct way to check different types of firearms for safety concerns and handling. She also interacted with the group by sharing her own real-life experiences with firearms and answering many questions. Also during the Firearms Safety, we had the opportunity to try out the Firearms Training System (FATS) machine run by VDGIF Sergeant Jim Moore. This allowed the impression of real-life

hunting and interactive situations, including hunters which could come up on the screen. This was very exciting as we used different types of game and terrain or scenery.

My next seminar made me understand why for years, my husband wanted a muzzleloader. I'm definitely hooked on traditional muzzleloader hunting, thanks to the patience, excellent training and information provided to our group by VDGIF Sergeant Mike Ashworth. I was so excited after the muzzleloading session, that I couldn't wait to research the different models and choices to prepare for my own muzzleloading adventure in upcoming deer seasons.

Game Care and Cleaning, taught by Jennifer West of Ducks Unlimited was my third session. As many fish as I've cleaned in the past, I never realized that I couldn't identify the names of the fins on a fish. Even though I had cleaned many doves in my life, I learned a new quick and





(Opposite page, top) Teamwork and fun were parts of the Basic Camping class as these women work together to set up a tent. *(Opposite page, middle)* Casting a fly rod is a skill that once taught, must be practiced. *(Opposite page, bottom)* A Bow Fishing participant aims carefully as she prepared to hit the fish-shaped target below the surface of the water. *(Above)* Stream Ecology participants learned many things both in and out of the water. *(Above right)* The 4-H High Ropes Course served as a challenge for many BOW workshop participants. *(Right)* An Introductory of Firearms participant shoulders a shotgun under the supervision of Instructor Sue Clark (left).

easy way to clean both dove and geese. With the opportunity to make geese kabobs, I found myself asking, "Why haven't I ever considered hunting geese?" It was wonderful how we all pitched in with cleaning the fish, doves and geese. We were able to present the final product to all of the BOW attendees and staff as some delicious additions to the wonderful evening meal.

My last session would be Deer Hunting and Ecology. I didn't realize it could get any better. We listened attentively as Glen and





Stephanie Askins taught us about the biology of deer, different tactics for hunting and then hands-on experience in scouting. I haven't stopped thinking about deer hunting since, and I've looked at several muzzleloaders.

Friday evening there was an extra bonus session on deer hunting tactics. Stephanie and Glen Askins once again revealed tremendous understanding of the subject. While providing the group with some of their most successful tactics,

Stephanie showed the group how to carry, prepare and use a climbing tree stand.

Saturday evening, we were entertained by a fashion show with the latest women's outdoor apparel. With 16 sponsors and donors, the door prizes were quite exciting. After the fashion show, we all gathered around the campfire listening to some great stories told by the 4-H Holiday Lake staff and sang songs. From start to finish, the food, surroundings and good times at the

Appomattox BOW event were some of the best I had ever experienced in any group, much less one this large.

The knowledge and sincerity of the instructors brought us together as a close knit group which was apparent in the many smiles and laughter as we gathered for a group picture with all our newfound friends. No one was ready to leave without first finding out when the next BOW seminar would be. The next seminar is scheduled for May, 1997. I can't wait, and I'll be there!



Saying goodbye to my new-found friends wasn't easy, except for the knowledge that we would be getting together again for the next BOW seminar. I heartily urge all who enjoy the many benefits of the outdoors to join us for the next BOW event sponsored by the Virginia Department of Game and Inland Fisheries. □

Besides being an avid outdoors woman, Michelle Scala is a freelance writer from Ophelia, Virginia.

(Above left) VDGIF Sgt. David Dodson (right) guides two students during the Map & Compass class. (Top) 4-H staff member, Terry Abston (center), helps participants collect samples during a Stream Ecology class. (Above) After closer examination, these Stream Ecology participants found a few surprises in their stream samples. (Right) The scales really flew during the Game Care & Cleaning class taught by Jenny West (left, standing).





Editor's Note:

The workshop is designed primarily for women. However, it is an excellent opportunity for anyone 18 years of age or older to learn a variety of outdoor skills.

In addition to the next BOW workshop May 16-18, 1997, two "speciality" workshops have also been scheduled. "Deer Hunting Weekend for Women" and "Turkey Hunting Weekend for Women" will be offered as two separate workshops at Smith Mountain Lake 4-H Center September 19-21, 1997.

For more information, please contact Libby Norris, BOW Program Coordinator, VDGIF, 5806 Mooretown Road, Williamsburg, VA 23188. □





(Opposite page, top) Beginning Muzzleloading class requires careful concentration on the range. (Opposite page, below) Instructors Tom and Kathy (center, standing) McKee describe one option for cooking outdoors during Basic Camping class. (Above) The key to regulating the temperature in a Dutch oven is the careful placement of the hot coals. (Above right) VDGIF Lt. Terry Bradbery (center) shares his knowledge during a Wilderness Survival class. (Right) Beginning Archery participants take aim with the guidance of VDGIF Biologist Glen Askins (right) and his wife Stephanie.





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A Hunter's Snow

by Bob Gooch

A snowstorm was blowing in. You could see it in the clouds, hear it in the wind whistling through the pines, and smell it in the Arctic air. "I can feel it in my bones," one aging hunting companion used to say. The ground was frozen solid and the temperatures were below freezing. Conditions were ideal for the snow to stay around awhile once it came down.

The weatherman was also predicting a snowstorm, a good one. It would blow in from the northeast, off of the cold North Atlantic Ocean. The forecaster was relying upon the latest data available, but the old

timers didn't need that expert advice. They could "feel it in their bones."

It would put a temporary end to my quail hunting, but hopefully it would melt soon enough to allow a few more days in the fields. The season would close at month's end. Virginia is one of the few states that doesn't permit quail hunting when the ground is covered with snow. But there is plenty of other game we can hunt. For some forms of hunting the snow is a handicap, but for others it offers advantages.

Unlike most Virginians, I love snow. It brings dramatic changes to

the countryside. Not the subtle changes that come with the changes in the seasons. A drab winter day quickly becomes a sparkling white one, a welcome change.

A new snow is much like an unlettered page of manuscript paper, a sheet of white until you put words on it. A fresh snow is also an unmarked white cover spread over the earth—or a least parts of it. Get out immediately after a snowstorm has blown over and you will see little in the fresh blanket on the earth's surface, but just be patient. Give it a little time. Wildlife will write all kinds of stories on that sheet of white, and the longer it stays on the ground the more there is to read.

Over many years when snow blanketed my hunting grounds, I've hunted just about every species of game found in Virginia. Deer, doves, rabbits, squirrels, waterfowl, and other game have fallen before my gun under such weather conditions. I love to hunt when snow is on the ground.

Get out the morning after a fresh snow has fallen during the night and you may not see much sign for awhile. Deer seem to wander a bit immediately after a snowstorm. You may find tracks, but they don't develop a pattern at first. At the most they tell you there are deer in the area—and little else.

Give the deer time, however, and a pattern of trails, and bedding and feeding areas begins to materialize, plenty of sign for you to work on. Popular trails become well used. They are much easier to read when made in the snow. The same is true of bedding areas. The heat from the body of a bedded deer will melt the snow beneath it, exposing the forest floor. Bedding areas become so obvious even the novice hunter can read them. Droppings are also more conspicuous against the white background, easier to spot than when dropped on the forest floor or along a trail.

Deer tracks (left) and rabbit tracks (right) are easily identifiable in the snow.

Probably a major hunting advantage is that deer are easier to track, particularly a wounded one. While good hunters can follow a blood trail under just about any conditions, the drops of blood in the snow make it a much easier task.

And how about dragging out a big buck once it is downed and field dressed? Use that snow. The load slides more easily as you struggle with it all the way to your hunting vehicle.

Rabbits are another Virginia favorite that offer new challenges once a good snow is on the ground. The short legs of the little beagle hounds may have trouble negotiating a newly fallen snow, but let it freeze a bit, form a crust, and the little hounds can stay on the heels of a scampering cottontail. Snow doesn't put much of a damper on hunting rabbits with beagles.

More important, however, is the sign bro' rabbit leaves in a fresh snow. There is no better sign to guide the hunter. The tracks are there for all to see, and he can put his hounds on a hot track to get a chase going. I once owned a pack of beagles and the question often came up regarding the hound's ability to keep on a hot trail in the snow. In other words, would the snow hold a good scent long enough for a chase? As far as my rabbit hunting friends and I could determine, it made little

difference. We enjoyed some good chases.

The true value of a covering of snow, however, benefits the hunter who does not own beagles. His chances of success multiplies significantly once the snow falls. A hunter can get out when the storm ends and begin looking for tracks. Cottontails move mostly at night so the ideal situation is a snowfall that ceases several hours before dawn allowing rabbits time to put down some tracks before daylight drives them to their hiding places.

Observe rabbits feeding or playing at dusk and notice how they seem to be constantly on the move, hopping about, munching on grass or other vegetation, and sometimes playing with each other. A single rabbit can make a lot of tracks. Don't let the abundance of tracks in the snow mislead you into believing the area is loaded with game. It could be, but the tracks are not a reliable indicator.

A fun rabbit hunting game, however, is to try to unravel that maze of tracks. Eventually a set will lead out of the maze and head out. Follow it carefully and eventually you will find it going into a thick briar patch, honeysuckle patch, or possibly beneath a brushpile or other cover. Circle around the cover and if the tracks don't emerge, you probably have a cottontail located.



Bill Lea

Now what?

If you are carrying a shotgun you may want to rout the critter out and hope to get off a killing shot at a scampering rabbit. You can wade into thicket and kick about or bounce up and down on a brushpile.

But suppose you are carrying a .22 caliber rifle or even a hunting bow and field point arrows. Unless you are unusually gifted with either, you probably are best off combing the cover with your eyes hoping to locate the animal for a head shot with the little rifle or the bow. Even in snow rabbits are often able to find good concealment, and if so they can be hard to locate with the naked eye. Binoculars might help. Take a section of the cover, scan it thoroughly and move onto another section.

I was once hunting with an old timer who had hunted rabbits for most of his lifetime. As we were moving slowly through a field, he stopped suddenly and pointed to a pair of rabbit ears sticking out of some heavy ground cover. The rabbit depends heavily upon those long ears to detect danger. He didn't move, probably satisfied that his concealment would shield him from prying eyes. They didn't because of the keen eyes of an experienced outdoorsman.

The cottontail's eyes are dark and shiny, and this can become their downfall. When scanning cover keep an eye out for those bright dark eyes. They can be very conspicuous. Locate them, look intently, and gradually the rabbit itself will materialize.

We don't usually associate dove hunting with snow. After all you hunt doves in September don't you? And beads of sweat roll down your back. But there's the late season, the final segment of the season that traditionally has opened around Christmas to run into early January. It's an often overlooked season, one set to catch the big northern doves migrating south ahead of the winter storms. They often encounter storms in Virginia, however, sometimes some bitter ones. The snow seals off the harvest grain fields and other sources of food so the doves go

looking. They are often drawn to hayfields or neglected fields where the weeds have taken over. The grass and weed seeds in those fields are often too high for feeding doves to reach. Besides they don't like to feed in thick vegetation where house cats and other predators may lurk. A new snow solves a couple of problems for the migrating doves. For one thing it may cover the thick vegetation and give the birds a feeding area not unlike a freshly harvested cornfield where the harvesting has bared the ground. More importantly, it raises the level of the bird's feeding platform, putting it up there where the seedy heads of the vegetation can be reached.

Such dove hunting hotspots are often hard to locate. It takes just the right amount of snow to create this feeding bonanza. Find one, however, and you may enjoy some fast winter dove shooting.

Over the years I've enjoyed some excellent waterfowl hunting under snowy conditions, mostly jump shooting the rivers for ducks. Woodies, mallards, and other popular ducks use the streams heavily in late winter. And when snow and ice seal off the farm ponds, small lakes, and other quiet waters the birds frequent, they head for the streams and open water. This can create some excellent hunting. Get a hunting partner, select a good stretch of river to hunt, launch your canoe, and enjoy the challenging hunting.

A word of caution. Arctic weather that brings snow and seals the still waters with ice might also seal the quieter stretches of the streams. Before launching down a river assure yourself that it is clear all the way to your takeout point. A friend and I ignored this precaution a number of years ago, but we enjoyed good shooting until we hit an ice jam about midway of our float. We had

Snow makes trails, bedding, and feeding patterns of deer easier to locate.

no choice but to exit the river, haul our canoe up a steep wooded cliff, and walk back to our upstream vehicle. Fortunately, we discovered an old logging road and were able to drive our 4x4 almost back to where we could reach our canoe.

I often hunt winter squirrels in the snow. It's fun to get out into the woods when such conditions exist and hunting becomes a real challenge. Camouflage offers limited concealment against a snow covered background.

Squirrel tracks and nut fragments are easy to spot in the snow and this offers a limited advantage. At least you know squirrels are about and



feeding. One good winter spot for squirrels is the border between a hardwood forest where the critters den up and a pine forest where they feed on the hearts of pine cones. Check out that pine forest and if you find cone fragments on the snow, take a stand, conceal yourself as much as possible and wait. Patience can pay big rewards. Snow creates challenges, but if you consider the advantages snow offers, you might enjoy some unusual winter hunting.

Bob Gooch is an outdoor columnist and has authored many books on hunting and fishing. He lives in Troy, near Charlottesville.



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Bill Lea

Will it be a Banner Season for Waterfowl?



Virginia waterfowl hunters can be forgiven if they've begun to feel like Eeyore, the woeful donkey from the Winnie the Pooh stories. Like Eeyore, duck hunters have rarely had reason to be optimistic.

But this year, all that may change. Virginia duck hunters are walking with a little spring in their steps this fall, and by season end may even be bouncing through the woods like Tigger, Eeyore's ebullient companion.

The summer of 1996 was relatively cool and decidedly wet through most of North America, filling the small ponds and lakes of Canada and the northern United States where many of the waterfowl that populate the Atlantic Flyway nest. This meant plenty of nesting grounds, abundant food, and better than average protection from predators. The result should be one of the best years for duck hunters in recent memory, a reason for optimism not experienced in duck hunting circles in nearly a generation.

This excellent breeding season comes on the heels of a winter which showed a significant increase in the number of waterfowl in the Atlantic Flyway. A survey last January by the U.S. Fish and Wildlife Service indicated that the number of wintering waterfowl in Virginia had increased over the previous year, and was higher than the five-year average. The survey is conducted in all states of the flyway each winter to provide an index to waterfowl population trends. While it is not a strict census of birds—it would be impossible to count every bird in the flyway—the survey provides an accurate barometer of population trends, which recently have been up for most birds.

The survey last winter showed that the populations of most dabbling duck species was stable, and that diving ducks were on the in-

crease. The Canada goose population increased in Virginia last winter, but those numbers were likely a reflection of weather patterns rather than population, says Gary R. Costanzo, waterfowl research biologist with the Virginia Department of Game and Inland Fisheries. "The increase in migratory Canada goose numbers was a result of cold weather and snow farther north in the flyway, not an increase in the population," he says. "The population of migratory Canada geese has been declining for a number of years, and management actions such as closing the season on migrant geese are being taken to help this population recover."

Virginia hunters will have a chance to put a Canada goose on the table, however, with the establishment of two seasons aimed at curbing the population of resident geese. An early season was held in September, before the arrival of migratory geese, and another will be held from January 15 through February 8, but only west of Interstate 95. Otherwise, the season will be closed to allow the migratory population a chance to rebound.

All is not gloom and doom for goose hunters, however. The snow goose season last year was one of the best, and the numbers of these Arctic-breeding birds continues to rise. Indeed, biologists fear that the snow geese are doing too well and are contributing to habitat degradation in salt marshes and on Arctic tundra. The geese feed by uprooting marsh plants, grasses, and winter cover crops. The result often is erosion in coastal wetlands and a loss of grain crops for farmers. Hunters will enjoy another lengthy season this winter, a full three-and-one-half months. The major part of the snow goose season begins on December 9 and runs through March 10. The daily limit is eight birds,

up three from last year, with a possession limit of 24.

Ducks Unlimited, the international waterfowl conservation organization, predicts that the fall flight from northern breeding grounds this winter will be the best in 25 years. The DU biologists estimate a total of 84 million ducks in the flyway, a significant increase over the 77 million in 1995 and 62 million the year before that.

The reason is rain. Conservation efforts by DU, federal and state governments, and other organizations have helped, but the break in the 20-year drought in the prairie pothole country is the most significant factor, biologists say. With the restoration of freshwater wetlands, ducks have a much larger area in which to nest, and thus are less vulnerable to predators.

As a result, the U.S. Fish and Wildlife Service is predicting significantly greater numbers of blue-winged teal, gadwall, shovelers, redheads, and canvasbacks. Mallard numbers remain high. Only pintail, widgeon, and scaup populations remain below average.

While habitat has improved in the breeding grounds of Canada and the northern U.S., the same holds true for the Old Dominion, where many of the birds produced in the north will spend the winter. Shallow bays, marshes, and sounds are prime habitats for dabbling and diving ducks, and many of Virginia's shallow bays and wetlands, such as those in the Back Bay area south of Virginia Beach, are showing an increase in the number of grasses and seed producing plants preferred by ducks. National Wildlife Refuges at Chincoteague and Back Bay provide winter habitat for migrating waterfowl, and there are numerous public hunting areas in the vicinity, including a new tract at Back Bay this year.

Virginia waterfowl hunters, when planning a general season outing, would do well to pick up a

copy of the new 68-page book, *A Guide to Virginia's Wildlife Management Areas*. The full color guide features a description of each of Virginia's 29 wildlife management areas (WMAs), complete with detailed map and a concise evaluation of the hunting possibilities. If you don't have your own private beaver pond or salt marsh—or know a friend who does—this guide will lead you to some of the best public hunting areas the state has to offer.

The guide can be purchased by mail by sending a check for \$5 to VIB, P.O. Box 27563, Richmond, VA 23220. Copies can be picked up for no charge at the Game Department office on Broad Street in Richmond.

From east to west, waterfowl hunters can find everything from open-water shooting of sea ducks to decoying mallards and woodies in flooded timber. It's a matter of what type of sport you want, where you live, and how far you're willing to travel.

The easternmost wildlife management areas include those in Back Bay, near the North Carolina line, and on the Eastern Shore. Three tracts, totaling 1,546 acres, make up the Princess Anne WMA at Back Bay. Nearby Back Bay National Wildlife Refuge, and the resurgence of aquatic vegetation in the bay itself, should make Princess Anne one of the state's best waterfowl hunting areas this winter. Waterfowl hunting is allowed from stationary shore blinds and from designated floating blind locations. Shore blinds are allotted by a random drawing, and floating blind sites require a seasonal pass, available from the Princess Anne area headquarters at the Trojan tract off Back Bay Landing Road near the community of Creeds.

Saxis and Mockhorn Wildlife Management Areas on the Eastern Shore are two other strong waterfowl hunting resources. Mockhorn is an inner island in the barrier island chain in Northampton County and is accessible only by boat. It's a long, narrow island made up principally of saltgrass marsh, which means its shallow ponds and narrow guts are good for black ducks and other dabblers.



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Wildlife Management Areas like Saxis and Mockhorn Island offer excellent waterfowl hunting opportunities. (Right) Canada goose photo by R. Anthony Todt.

Saxis is a large (5,574-acre) salt marsh area on the Chesapeake Bay just south of the Maryland line. There are two tracts at Saxis. Michael Marsh, south of Messongo Creek, is a refuge where hunting is

not allowed. The northern tract, however, offers black ducks, mallard, widgeon, pintail, and teal. Diving ducks can be taken in the open waters surrounding the marsh, and sea ducks can be found in the deeper waters of Pocomoke Sound.

Also in the Tidewater area, on the western side of the Chesapeake on



Williamsburg, is managed for migrating waterfowl, with a number of water control structures designed to maximize native plant food production. Hunting is strictly controlled through a lottery drawing held in October, so put this one on your calendar for next season.

Ragged Island WMA is another public hunting resource in Tidewater that is especially popular for jump shooting. Numerous small ponds and creeks lace the marshland, offering opportunities for taking dabbling ducks, and diving ducks can be shot from licensed blinds in the adjacent tidal waters of the James and smaller creeks.

In the Piedmont, Amelia WMA offers hunters access to the Appomattox River, while Briery Creek, near Farmville, provides good lake shooting. Waterfowl hunting there is especially good in the protected coves. Wood ducks are early season favorites, while mallards and a variety of diving ducks are prevalent later in the season.

In Fluvanna County, Hardware River WMA provides access to duck hunting on the James River. A launch site is located on Rt. 646 at the northern end of the WMA.

Hardware River and

the Chickahominy River, is Chickahominy WMA about 12 miles west of Williamsburg. Chickahominy offers hunting for dabbling ducks in beaver ponds, as well as hunting in the tidal waters adjacent to the WMA. Stationary blinds are not allowed, but floating blinds accepted on a first-come basis.

Not far away is Game Farm Marsh WMA, another boat-access-only area, where hunters have had good success with wood ducks. Boat access is available at commercial ramps on Chickahominy Lake.

Hog Island WMA, on the James River near

Dobby Creek run through the area, emptying into the James near the launch site.

A little farther west, in Nelson County, is James River WMA, which again offers duck hunters access to the river. The management area runs along about a mile of river frontage and hunting is allowed along the banks of the river or from a boat.

The Rappahannock River makes up the western boundary of C.F. Phelps WMA in Fauquier and Culpeper counties, providing another good opportunity for waterfowl hunting. C.F. Phelps is a large area, with more than 4,500 acres, and it is intensively managed for many species of wildlife. It is one of Vir-

ginia's most popular WMAs among hunters.

In the mountains, Clinch Mountain WMA spreads across four counties in the southwest highlands. The area has a high population of beavers, and thus plenty of shallow ponds where wood duck shooting is usually very good, especially during the early seasons.

Some waterfowl hunting is available on reservoirs, principally Philpott in Franklin and Henry counties and Gathright farther north in Bath. Fairystone Farms WMA surrounds Philpott Reservoir and has an eight-acre marsh impoundment that is off limits to hunters. But opportunities are available on the 3,000-acre reservoir.

The General Waterfowl Season at a Glance

- The final portion of the general duck season runs from December 9 through January 18, with black ducks off limits December 9-14.

- Bag limit is five ducks and may include no more than one mallard hen, two wood ducks, two redheads, one canvasback, one pintail, one fulvous whistling duck, and one black duck. Possession limit is twice the bag limit.

- A season on resident Canada geese will be open from January 15 through February 8, but only west of I-95—3 per day.

- The snow goose season will run November 22-30, December 2-7, and December 9-March 10. Limit is eight birds per day, 24 in possession.

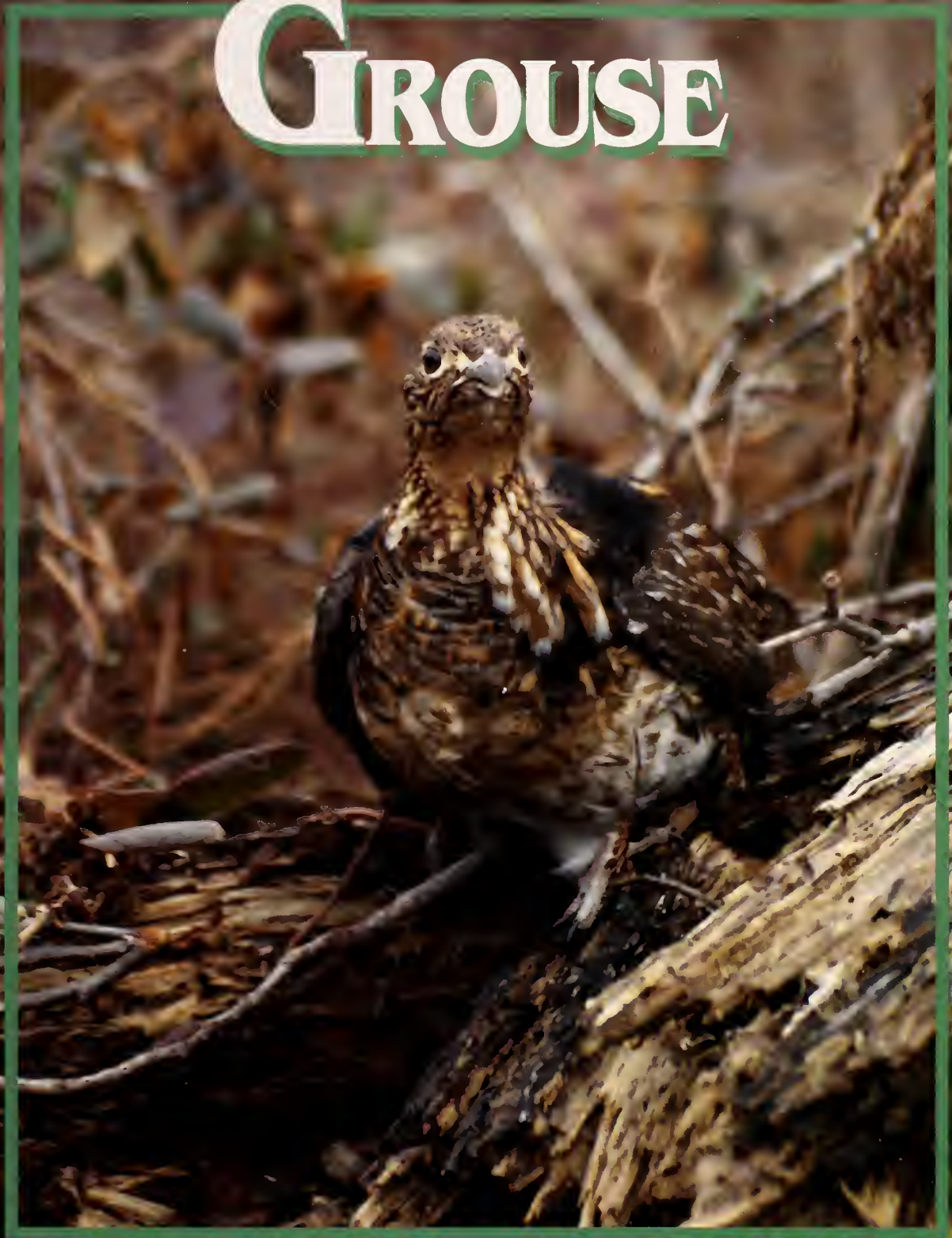
- A valid state hunting license and federal migratory waterfowl stamp are required.

- Steel shot is mandatory throughout the state.

Curtis Badger is a writer and photographer who lives along the Chesapeake Bay on the Eastern Shore.



LATE SEASON GROUSE



by Gerald Almy

For many kinds of hunting, the earlier in the season one goes, the better chances are for success. This is certainly true for deer, and in some cases for doves, ducks and turkeys.

One species it is not true for is the ruffed grouse. Decades of hunting this delightful russet, black, and tan gamebird in Virginia have shown me (and harvest studies have confirmed) that some of the best hunting of the year for grouse takes place late in the year—in December, January, and early February.

I used to be jealous of nearby West Virginia hunters who got to go out in mid-October and enjoyed a chance to seek grouse two or three weeks earlier than Virginia hunters. But after obtaining a Mountain State license and trying that early hunting, I mostly wound up coming home sweaty, scratched, bedraggled, and often grouseless. Even the first few weeks of Virginia's season in November were never the best. As a result, I no longer care about an early start on grouse. Give me the last month or two when temperatures dip, cover thins out and leaves fall from trees and I'll enjoy the best grouse hunting the Old Dominion has to offer.

All too often temperatures are hot in October and November and not conducive to the hard mountain walking grouse hunting requires. It's great weather for sitting on a bow stand waiting for a whitetail or at the edge of a cornfield hoping to pick off a dove or two. But for trekking steep mountains—simply too warm.

Foliage is another problem with early season hunting. Leaves are still on some trees and weeds and brush are thick, making visibility poor. If you flush a bird, seeing it and getting a shot are not likely. More often than not you'll just hear the whir of wings or get a fleeting glimpse of the grouse disappearing behind a canopy of leaves and brush.

Grouse will more often concentrate, due to a lack of cover and limited food sources during the colder parts of winter.

*Below: wild grapes
photo by Bill Lea.*



©Dwight Dyke



Food is also abundant for the birds, and with plentiful groceries and thick cover virtually everywhere, grouse are not concentrated. Finding them is more difficult.

Another negative factor of early season hunting is the wildness of the quarry. Quite often grouse in the early season are edgy and prone to flush far out, making it even more difficult to get a good shot with the dense cover.

All of these problems of early season grouse hunting vanish when winter arrives. The air is cool enough for comfortable walking all day, even in steep terrain. Leaves

have fallen from trees and brush and weeds have thinned from the cold and frosty nights. Seeing birds when you flush them is much easier. Furthermore, since the cover has thinned, grouse begin to concentrate more where there are still thickets, blowdowns and dense undergrowth. You can look at the grouse woods at this time and start to see where the birds are likely to be holed up. This makes it easier to formulate a hunting plan.

Grouse are also less prone to flush wild in winter. Food is not as abundant so they're less anxious to waste the calories and energy required to

fly away. And fewer foods means the birds will be easier to locate by finding their remaining food supplies.

The habitat surrounding prime winter food and cover areas is also more open at this time. The birds sense they are more vulnerable if they fly and tend to hold tighter. Since you can get closer before the birds flush, better shots usually result. A final advantage of late season grouse hunting, particularly after the first week of January, is that deer hunters are out of the woods so you have vast tracts of land virtually to yourself, except for the stray rabbit or squirrel hunter.

Snow in some years can be a benefit as well. It makes the birds show up better when they flush, or as they run on the ground just before flying. It also allows you to track them if it's soft and fresh. Even if you don't get a shot, you'll see from the tracks which areas the birds prefer and can hunt those spots again on future trips.

Since cover is more concentrated and food supplies have dwindled, grouse are often found in groups during winter. You'll flush some singles, but you're also just as likely to push three or four birds out of a blowdown, grapevine or laurel thicket. Even if you're caught unready by the first grouse, by quickly getting into position and raising your gun you can often take the second or third bird to fly from a piece of cover.

I had a prime example of this on a hunt in Fauquier County when I flushed a bird out of a tangle of fallen trees, saplings and grapevines on the G. Richard Thompson Wildlife Management Area. My arms were wrapped in a vine at the time and I could only watch helplessly as the bird veered down the snow-covered mountainside. But I quickly pulled back to a clear spot between the trees and got ready.

Two more birds piled out of the clump of cover with a roar of wings. I took the first bird with a load of #7 1/2's from my right barrel, but missed cleanly on the next one. On other occasions I've flushed as many as five



Soc Clay

grouse that were grouped together in a single piece of cover. A friend of mine topped that, flushing 10 grouse from a grapevine thicket one winter day. He was so rattled he missed all 10 birds.

The type of habitat I found those grouse holding in during the Fauquier County hunt is a prime example of the areas you should search out for winter birds. Most of the woods at this time of year will look open and clean with mature trees and little understory or brush. In sharp contrast to those areas, other parts of the forest will look thick and tangled with abundant brushy cover. That's where the grouse will be. Look for areas with young trees, downfalls, briars and vines. These are the locations where they find food and cover—their two essentials for winter survival. Clearcuts can be especially good if they are in small patches or with irregular edges because of the abundant understory and fruits, berries, seeds, saplings, buds, and tender green plants that appear during the regeneration process several years after being cut.

Look for vegetation such as greenbriar, honeysuckle, multiflora rose, dogwood, oak, hawthorn, poison ivy, mountain laurel, blueberry, and most important of all, grapes. Grouse feed on grapevine twigs, grape leaves, buds, and the remaining fruits. Areas near seeping springs and along creeks where green leaves, forbes, or ferns are found also attract winter grouse. Locations with evergreens are also favored because of the shelter they provide during inclement weather and for roosting at night.

And that brings up the important point of weather. If it's snowing hard and blowing, look for grouse to be holed up in dense groves of conifers, at times actually up in the trees sitting on limbs. If it's simply cold and windy but not snowy, look towards the leeward sides of cover and hollows that are sheltered from the bitter winds. If the weather is calm, simply look for the densest habitat with the most food, whether it's in a hollow or on a high ridge.

Grouse can occasionally be encountered as far east as Quantico Marine Base near Interstate 95 in Virginia. As a rule, though, the foothills where they merge into the Piedmont is the furthest east where you'll find good numbers of birds. The western third of the state is their stronghold. The Jefferson and George Washington National Forests offer over 1 ½ million acres of public hunting, much of it prime grouse country. The state's wildlife management areas in western counties are also good bets. Some of the best include Clinch Mountain, Gathright, Little North Mountain-Goshen, Hidden Valley, G. Richard Thompson, Highland, and Rapidan. A helpful book with maps showing

flush a grouse. You'll only get shots at about half the birds that flush. Then, typically, even good hunters score only about half the time they fire. Figure all of these statistics out and it works out to an average of one grouse bagged per four or five hour trip, and that's for experienced hunters.

If those statistics don't turn you off, then head for the western part of the state, find the type of cover and winter grouse foods mentioned above and get set to hunt. You can do so with or without a pointing dog, but if you do use a canine assistant, it should be a well-trained dog that hunts close and does not rush ahead busting birds out of cover before you get close enough for a shot.



©Dwight Dyke

these areas has been produced by the Virginia Department of Game and Inland Fisheries entitled *A Guide to Virginia's Wildlife Management Areas*. The guide can be purchased through the mail by sending a check for \$5 to VIB, P.O. Box 27563, Richmond, VA 23220. A copy can be picked up for no charge at the any of the Department's regional offices.

Before deciding to hunt ruffed grouse this winter, be forewarned that this is not a sport that offers the rewards of a heavy gamebag. On the average it takes about three-fourths of an hour of hard walking just to

The closer a grouse dog works, the better. Brittany spaniels and English setters are usually the two top breeds used for grouse hunting in Virginia. A few hunters also use old, close-working Labradors to flush game at short range and retrieve downed birds.

With or without a dog, try to work through the cover along mountains by paralleling the ridge. This cuts down the amount of up and down walking you do and reduces fatigue. If you're working hollows, hunt down one side, then back up the other. You can also work out



Grouse like to feed in areas of dense vegetation, making hard working grouse dogs a valuable tool.

valleys if the cover is good, paralleling the stream bottom on sweeps further and further away from the water and up the slope of the mountain, concentrating on thick dense cover and areas where food is abundant.

If you don't have a dog, pause often and wait for five to 20 seconds, to try to flush any skulking birds. Do this when you are near good cover and your gun isn't wrapped in a grapevine or tangle of brush, so you

can swing freely and get a shot off. If you stop too far from the cover, birds may flush out of range. And if you stop when you are in too thick of a spot to mount the gun and fire, that is most assuredly when they will flush.

While cover isn't as thick as in the early season, it still helps to wear a good pair of upland brush pants to protect yourself from briars and thorns. Grouse will be in the most tangled briary looking spots you can

find and you need to be able to go in after them without fear of getting scratched and cut up. A vest with a game bag or heavy canvas coat is also needed, as well as good comfortable leather boots, two pairs of socks, a hat with a brim and shooting glasses if you don't wear eyeglasses normally. If it's very cold, wear longjohns, a kerchief for the neck to retain heat and protect against briars, and a light pair of cotton or leather gloves keep the hands warm.

Guns for late grouse can run the gamut from 12 gauge to 28. Only expert shots should go lighter than 20 gauge, though. Barrels should be short, for easy maneuverability in the thick cover and quick snap shooting. Some like improved and modified in a double barrel, while others go for improved in a single shot, pump or autoloader. If you hunt really tangled close cover you may find an open bored barrel with no choke at all is best. See what distance shots you're getting and if they're less than 30 yards most of the time, opt for an open choke. Otherwise go with improved and/or modified.

Shot size can be 6, 7 1/2 or 8. See what patterns best and brings grouse down cleanly for you, then stick with that. I like 8's for early season hunting, 7 1/2's for late hunting. Seldom do I resort to 6's.

With most hunting for deer, turkey and bear drawing to a close, it's time to break out the upland gun and brush pants and hit the mountains. Some of the best grouse season of the year still lies on tap from now through mid-February. □

Gerald Almy has been a full-time outdoor writer for over 19 years. He is currently a hunting and fishing editor on the staff of Sports Afield.

Editor's Note: The Virginia Department of Game and Inland Fisheries welcomes cooperators for its ongoing wing-and-tail grouse survey. The study permits the state to monitor the health, age and population trends of ruffed grouse throughout the Old Dominion. For additional information contact, Gary Norman, VDGIF, P.O. Box 996, Verona, VA 24482

Frozen Frogs and

by Joseph C. Mitchell
Photos by R.W. Van Devender

Wintertime for humans consists of warm clothes, crackling fires in our fireplaces, and hot drinks to keep the chill at bay. For the many kinds of wildlife we enjoy it's thick fur or a dense pack of down feathers to ward off the elements. But have you stopped for a second to think about what animals without fur and feathers do to survive the ravages of winter?

Many of us have heard spring peepers (*Pseudacris crucifer*) call on warm days in the middle of winter. And, indeed, the calls of these frogs, a single, clear, high "peeeep" repeated at intervals of about a second, are some of the natural sounds we associate with late winter and early spring. We sometimes hear them even when the ground is still covered with snow. But where do these and other frogs go when they are not calling and when it is really cold outside? How do they cope with winter's freezing temperatures?

Frogs and salamanders, the two groups of backboned animals that represent the amphibians here in Virginia, have thin, sensitive skin that must remain moist. The lack of insulation requires them to seek other ways of dealing with the cold. Some of the ways they survive the winter, especially like those we had this past year, is common knowledge. They simply go underground below the frost line or stay under



Animals without fur and feathers show amazing adaptation to winter's cold.

Cold Salamanders



David Liebman

Both color phases of the red-backed salamander (left) and American toads (top) overwinter underground below the frost line. Spring peepers (above) photo by David Liebman, the common harbinger of spring, spend winters in trees and under leaves above the frost line. Background photo ©Dwight Dyke.

Many of these animals find overwintering sites away from the frost line. The best examples of this tactic are terrestrial salamanders, like the red-backed salamander (*Plethodon cinereus*), and toads, like the American toad (*Bufo americanus*). Amphibians who go underground are subjected to relatively few stresses, as long as they remain moist and their body temperatures above the freezing point. Frogs, like spring peepers (*Pseudacris crucifer*) and eastern gray treefrogs (*Hyla versicolor*), who spend their winters in trees and under leaves are not protected against extreme cold. They have to find other ways to keep from being killed by winter's frost.

A few amphibians can actually tolerate cold temperatures as long as it is above freezing. Here in Virginia one species that is active in winter is the tiger salamander (*Ambystoma tigrinum*). Adults emerge from underground burrows in January and February and migrate to breeding ponds to mate and lay eggs. They can even migrate overland during winter storms with rain and sleet. Reports from New England tell of these animals walking over snow and ice in their quest to reach a breeding site. But despite the cold water, these salamanders can move rapidly under the ice in water at temperatures of about 39-46° F. These conditions are much too cold for us unless we are wearing thermal waders. Once egg laying is accomplished by mid-March, the adults return to their underground retreats, leaving the eggs and larvae to fend for themselves in the aquatic environment.

water throughout the winter. Right? Well, some do and some don't. As in much of nature, reality is not always that simple. Some of the survival tactics that have been discovered in amphibians recently are both incredible and surprising. These involve inactivity above the frost line under leaves and in trees, dehydration, antifreeze, and simply tolerating being frozen.

It is difficult for us, being warm blooded, to relate to animals whose

activities and metabolism are regulated by external temperatures. But the ectothermic way of life (we are endotherms because we produce our own heat) has many advantages. Birds and most mammals have to eat frequently to stay alive in winter, an obvious point to anyone who feeds birds and squirrels. Frogs and salamanders, and reptiles for that matter, do not eat when they are cold. They are able to go dormant and simply wait it out.



Adult bullfrogs (left) and green frogs (right) spend winters under water in ponds but seldom bury in the mud. Tadpoles of these species, like the bullfrog (center), tolerate low oxygen concentrations and can remain buried in mud for much of the winter.

be amazingly abundant in mountain streams and tributaries. They are active nearly all year long, but in winter you have to dig below the ice-covered surface to reach them.

Several other species in this group called ambystomatids breed in early spring, although the adults do not emerge as early as the tigers. These include the statewide spotted salamander (*Ambystoma maculatum*), the montane Jefferson salamander (*Ambystoma jeffersonianum*), and the southeastern Mabee's salamander (*Ambystoma mabeei*). One species in this group, the marbled salamander (*Ambystoma opacum*), avoids much of the winter chill by breeding in the fall. Females stay with their eggs until water levels reach the nest which stimulates the eggs to hatch. They then leave for underground retreats. Their larvae overwinter in water and are there acting as predators when the larvae of the other salamanders hatch from their eggs.

Several salamanders, some the largest in North America, remain in water their entire lives. Hellbenders (*Cryptobranchus alleganiensis*) in southwestern Virginia and greater sirens (*Siren lacertina*) in the Coastal Plain inhabit streams where they can avoid the coldest temperatures. Adult red-spotted newts (*Notophthalmus viridescens*) also stay underwater during winter, but the terrestrial immature stage, the eft, must go underground.

Cold tolerance is characteristic of another group of amphibians called



streamside salamanders. This is a large group of species which inhabits the margins of creeks and streams, especially in the Appalachian and Blue Ridge mountains. Two examples are the seal salamander (*Desmognathus monticola*) and the southern two-lined salamander (*Eurycea cirrigera*). They can

Tiger salamanders (upper left) migrate to breeding ponds and lay their eggs (center background) in February. Spotted salamanders (left) enter ephemeral ponds in March. Marbled salamanders (opposite, lower) emerge from terrestrial retreats and lay their eggs (above) in the fall which then hatch during winter rains. Their larvae (opposite, upper) are large enough to eat the larvae of the other two species when they hatch in early spring.

The stresses of living underwater in winter relate directly to the amount of oxygen dissolved in the water. Amphibians obtain much of their oxygen across the wet skin surface. So long as there is a high enough concentration of oxygen in the water, like in mountain streams, adults have few problems. But when

oxygen concentrations decrease, say in small, stagnant ponds, there may not be enough to sustain many individuals. For this reason, winterkill occurs in shallow ponds with some regularity in northern latitudes. There have been only a few reports of this happening in Virginia, all in high elevation ponds and during very cold winters.

Although adult frogs who overwinter under water may be subjected to low oxygen problems, their larvae, the tadpoles, possess an amazing ability to survive in very low concentrations. Adults cannot spend much time in mud because this substrate does hold much oxygen; it is anoxic. That is why adult frogs can be found above the sub-

strate and under various forms of cover in the open water.

for months in shallow ponds when they are frozen almost to the bottom. The tadpoles of most frogs in the genus *Rana*, three of which are noted above, easily survive prolonged winters. And indeed the larval periods of some of these tadpoles last as long as two full years. Tadpoles of other frogs, however, like gray treefrogs, toads, and other summer breeders, metamorphose and leave their aquatic environments well before the cold sets in. Only the juveniles and adults of these species must find ways of coping with the cold.

The most amazing feats of cold tolerance in amphibians are found in those frogs that overwinter inside trees, under bark, and under leaves

The most thoroughly studied example of freeze tolerance in amphibians is the wood frog. This species occurs from the southern Appalachian Mountains northward to the Arctic Circle and Alaska. In Virginia, males call for a short period of time in late winter and females mate with them over a few nights in February or early March. This is the species seen in the time lapse video illustrating what appears to be a dead frog in a block of ice. The ice thaws, as does the frog, and the frog hops away in the end. How can it survive being totally frozen?

Researchers in Midwestern and Canadian laboratories have elucidated the remarkable story. As cold temperatures approach in fall, wood



strate and under various forms of cover in the open water.

In contrast, tadpoles of species like the bullfrog (*Rana catesbeiana*), green frog (*Rana clamitans*), and carpenter frog (*Rana virgatipes*) are able to spend long periods of time buried in the mud. They are able to simply tolerate the low oxygen conditions and lower their energy consumption. Tadpoles of some of these species have been known to survive

Southern two-lined salamanders (top) occur in the margins of streams statewide. Hellbenders (above left) in southwestern Virginia and greater sirens (above right) in the Coastal Plain spend their entire lives underwater in rivers and creeks. All three may be active under ice cover in winter.

on the ground. These include spring peepers, eastern gray treefrogs, upland chorus frogs (*Pseudacris feriarum*), and wood frogs (*Rana sylvatica*).

frogs seek overwintering sites under leaves in the forest, inside logs, and beneath tree roots underground. Blood sugar levels increase rapidly upon contact with ice and reach up to 200 times normal concentrations. The high amounts of glucose in the blood acts like an antifreeze so that these frogs can tolerate temperatures just below freezing. Further decreasing temperatures cause ice to be formed throughout the frog's tissues.



Carpenter frogs (*top*) overwinter under water in freshwater wetlands in the Coastal Plain. Chorus frogs (*above center*) and wood frogs (*above*) emerge from retreats under leaves in winter to call and mate. Both have antifreeze in their blood and can also tolerate over half their body water being totally frozen. Seal salamanders (*right*) inhabit margins of mountain streams and can be found beneath the ice in winter.

Unfortunately, ice formation inside living cells is lethal. These frogs avoid death because they keep the ice in the body water, outside of the cells. This is accomplished at the expense of the organs which dehydrate during this period due to water loss. About six hours after initial ice formation, the heart still beats (about 4 beats per minute) and ice content reaches

about 35 percent. Sixteen hours later the internal ice level reaches 65-70 percent, the organs have lost 20-60 percent of their water, and the frog goes into cardiac arrest. The heart rate quickly returns, however, when the frog is thawed to the freezing point, although regaining limb movement requires another 12 hours at 39° F. Normal activities resume within 14-24 hours of thawing, regardless of how fast the frog thaws out.

How fast the frog cools is critical to its survival. If it cools faster than about one degree Celsius per hour it may not survive the ordeal. Some frogs in a population, especially those not well insulated by leaves or wood, undoubtedly succumb during extremely cold periods.

Another factor influencing the ability to tolerate freezing is geographic origin. Wood frogs from the upper Midwest and Canada are known to tolerate freezing but those from the southern portion of their range, such as Virginia to Alabama, may not be able to use this defense. Unfortunately, frogs from these locations have not been studied for their freeze tolerance so we do not know if they act like their northern cousins. It may be that frogs from high elevation populations utilize this strategy but those from low elevations do not.

Gray treefrogs, spring peepers, and upland chorus frogs also exhibit freeze tolerance, and all three live in Virginia. Research on these frogs in Midwestern laboratories has demonstrated that they can withstand temperatures as low as 21° F and tolerate freezing of over 50 percent of their body water. They live in

the same overwintering sites as wood frogs do and are also subjected to freezing temperatures. It is interesting to note that comparative research done on American toads show that they are not tolerant of freezing despite the fact that they occur well up into Canada. Their only escape is to go underground, which they do by burrowing down backwards with their hind feet.

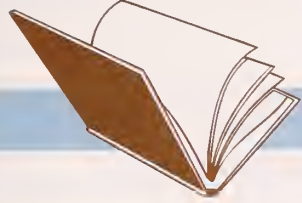
Winter survival of frogs and salamanders consists of a mix of behavioral strategies and internal physiological adjustments. Such features allow these small, cold-blooded animals to live in places like northern latitudes and high elevations that most of us, especially Southerners, would classify as having very harsh winters. Were this not the case, then these fascinating animals would all be restricted to the tropics.

So as you sit by your fireplace this winter, snuggled in a warm blanket, and sipping hot coffee or chocolate, think of salamanders under the ice and frozen frogs beneath the leaves. As spring approaches in a few months, these animals will revive and again enchant us with the sights and sounds of nature awakening from a cold winter's sleep. □

Joe Mitchell teaches conservation biology at the University of Richmond and is the author of The Reptiles of Virginia.

Note—A companion article on reptiles was published in *Virginia Wildlife* in December 1994 ("A Cold Winter's Sleep").





Journal

Unique Clinch Mountain WMA

by Spike Knuth

The 25,477-acre Clinch Mountain Wildlife Management Area is the second largest of the Department's management area system, but is unique in that it has the distinction of being the most biologically diverse. Due to the vast differences in elevation on the area, it has tree and other plant species from both northern and southern forests. Bird species normally associated with northern forests often breed and/or winter here as well. Because of this diversity, management of the area can be quite a challenge as well.

Part of the area's management plan deals, of course, with a timber program. "We're developing close to two miles of additional roads to distribute habitat improvements," said Wildlife Biologist Assistant, Scott Whitcomb. "A new road, will benefit grouse, deer and bear. Thinning this mature forest will improve habitat, improving cover and growth of mast-producing trees. We'll be trying to regenerate 75 acres and thin 50 acres per year. These sales are planned years in advance while this year's sale has just been sold, next year's is being marked."

About 150 acres of clearings are mowed each year to keep the land in early successional stage. Whitcomb said that some replanting, liming and fertilizing is being done, keeping parts of the area in perennial cover, such as orchard grass and clover. "Rather than just mowing the fields, we want to improve them, Whitcomb said." Some 12 acres were planted in 1996, 62 acres were fertilized and 25 acres were limed. "We're trying to upgrade the overall quality of the forage this year. In addition, we hope to create 30 acres of new clearings this fall, which will provide additional open acreage that will benefit deer and turkey."

American Electric Power (AEP, formerly Appalachian Power Company, or APCO) is presently working on improving a better hunter access road. The upper portion will be a strip clearing to benefit wildlife. Foot travel only is planned for this section. The current road provides access to AEP's tower but cannot handle constant vehicular use. AEP will be upgrading it for their use, but also to benefit hunters.

There is also a nest box program on the area and it will include the conversion of some 50 plastic wood duck boxes to wood boxes. A more ambitious bluebird box program is also planned and use by the birds will be documented. Plans are to refurbish the tree swallow houses along Laurel Bed Lake. There was an area of standing timber in the lake in its earlier years which attracted a sizeable colony of swallows. The trees have since fallen into the lake, but a battery of houses was erected along the shore which continue to provide the swallows with a place to nest. These houses will be replaced. "All of these projects should provide good examples for others to imitate to attract wildlife on their own lands," said Whitcomb.

Signage on the area has been improved. Old signs were removed, and new ones erected. New signs will explain some of the management activities and projects being conducted. Information boards—kiosks—will inform visitors week to week concerning these ongoing projects and other pertinent information.

Beginning in August, a five-year grouse trapping program got underway. Grouse are being trapped with drift fence-cloverleaf traps. Biologists will record condition data, then attach radio-transmitters so their movements can be tracked.

At Hidden Valley Wildlife Management Area in Washington County, which is managed by Whitcomb along with Clinch Mountain, the public road has been rebuilt and

roads and parking areas within the area have also been improved. Unserviceable roads have been gated but foot travel on these roads is still welcome, and offer convenient access into the area for hunting, hiking or birdwatching. □

"Top Gun" Award

Sgt. William B. Crews of the Law Enforcement Division received the "Top Gun" award from the International Association of Law Enforcement Firearm Instructor's (IALEFI) board member, Gene Scott of the Arizona Department of Fish and Game. Sgt. Crews attained the top score in a course dealing with tactical shooting from a watercraft during the annual conference held in Meza, Arizona in late September. Instructors from all over the world participated in the tactical shooting exercise.

IALEFI provides seminars on subjects directly related to the field of law enforcement firearms instruction. In an effort to reduce liability, experts from around the world are invited to provide information in the latest techniques and technologies available to the law enforcement community. Attendees can then evaluate the need for training and equipment within their respective agencies.

Sgt. Crews is the Law Enforcement Division's Chief Firearms Instructor and Area Sergeant in the Richmond area. He is responsible, in part, for the high proficiency level in firearms of all Virginia game wardens. □

Game Warden of the Year

Bruce Lemmert, Game Warden of Loudon County, was selected as this year's Game Warden of the Year for all-round outstanding service. William L. Woodfin, Jr., Director of the Department of Game and Inland



Bruce Lemmert, (right), and William L. Woodfin, Jr. (left), Director of the Department of Game and Inland Fisheries.

Fisheries presented the award at the Virginia Wildlife Federation reception in October. □

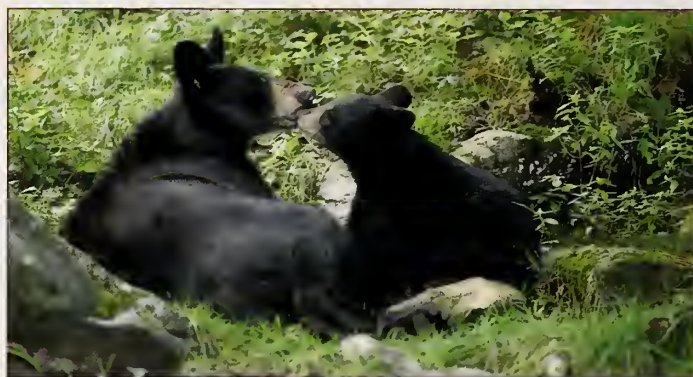


Burke Lake's handicapped accessible pier will serve a vital constituency. From left to right at the June ribbon cutting are: (Left to right) Thomas B. White, Jr., Chairman, Fairfax County Park Authority; William L. Woodfin, Jr., Director, Virginia Department of Game and Inland Fisheries; Dave Silcox, Burke Lake Park staff; Don Colodny, Fairfax Area Disability Services Board; Cindy Walsh, Project Manager, Fairfax County Park Authority; Michael E. Belefski, Fairfax County Park Authority Board; The Honorable Katherine K. Hanley, Chairman, Fairfax County Board of Supervisors; Mike Schmitz, Independence Center of Northern Virginia; and The Honorable Elaine McConnell, Springfield District, Fairfax County Board of Supervisors.

Correction:

Alert readers have called our attention to a few mislabeled ducks in our October issue. In the process of assembling that issue, two photos of hen mallards were misidentified, one as a green-winged teal and the other as a blue-winged teal.

Please Help Protect Black Bears In Southside Virginia



Bill Lea

These beautiful black animals once inhabited all of Southside, today, because of better habitat, black bears are returning to this area. They are still protected by law with penalties up to \$3,500 and possible imprisonment. These shy, reclusive animals deserve your respect. Do your part so that all of us can enjoy a healthy population of black bears in the future. So please...if you see a black bear, enjoy the rare treat and leave this native of southside forests undisturbed.

Reward Up To \$1,000

For information leading to the conviction of any person killing a black bear in the southside counties of:

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You May Remain Anonymous



This Poster And The Reward Fund Have Been Made Possible Through The Generosity Of The Burton Wildlife Foundation In Cooperation With The Virginia Department of Game and Inland Fisheries



Lee Walker

Pier Dedication

Smith Mountain Lake's handicapped accessible pier was dedicated this fall. On hand for the ceremony were: (l to r) Kathleen Lawrence, the Director of the Department of Conservation and Recreation; Michael Thacker, the Hydromanager of Smith Mountain Lake for American Electric Power; William L. Woodfin, Jr., Director of the Department of Game and Inland Fisheries; and Becky Norton Dunlop, the Virginia Secretary of Natural Resources.

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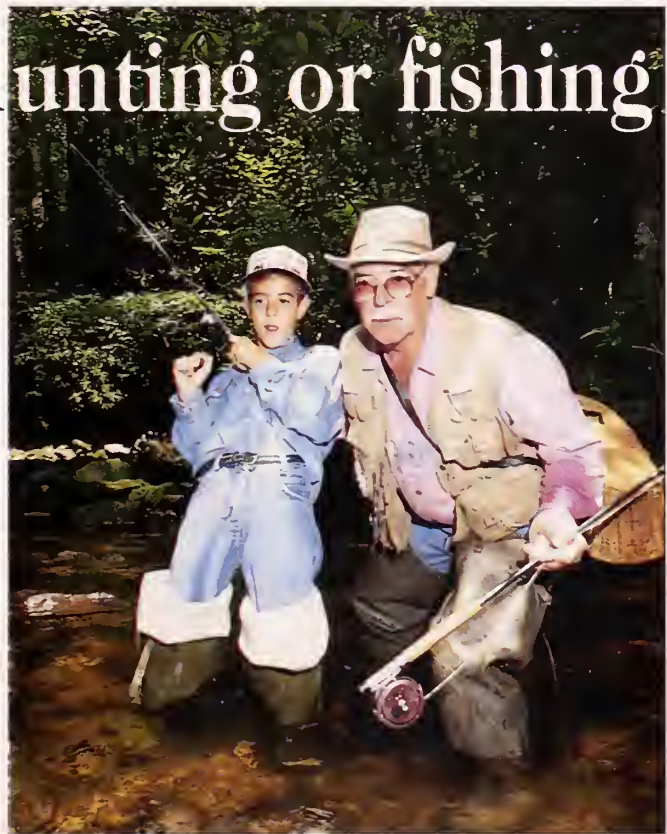
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by Col. William Antozzi, Boating Safety Officer

Beware of Hypothermia

Virginia boaters, including anglers and hunters, are again reminded to beware of the dangers of hypothermia. This is especially true of waterfowlers, since they deal with a lot of awkward equipment and clothing, and are usually exposed to more wind and water. Duck hunters travel over water to blinds, setting decoys and retrieving downed birds. They are subjected to strong winds due to the open areas in which they hunt. To top it off, Virginia air is generally humid, certainly air off of the water is, so the cold seems to be more bone-chilling than the drier air of the northern climes.

Getting wet from being drenched by rain or snow; from sweating; from leaking boots or waders; or from getting dumped from boats into the water, can lead to hypothermia. Hypothermia occurs when the body loses heat faster than it can be replaced. The body will lose heat 25 to 30 times faster in water than in air of the same temperature. The same body moisture that cools us in summer through evaporation, can have a devastating effect in winter. Simply put, hypothermia takes heat away from the inner body via the head, neck, face, armpits and crotch areas, and reduces the body's ability to function normally. It can result in death or an action that results in death.

There are a number of safety tips that boaters can heed to protect themselves. First of all, they should be prepared for an emergency. Boats should have all the proper flotation devices on board, including personal flotation devices (PFDs) including both wearable and throwable devices (boat cushions or ring buoys). Check the *Virginia Motorboat Owners Guide* for laws on the subject. This

free publication can be obtained from the Department of Game and Inland Fisheries offices around the state. Wearing a PFD will keep you afloat and is useful in protecting against hypothermia.

It is important to stay dry in the cold, if at all possible. If you do get wet, get to a place of shelter, out of the wind. Avoid over exertion, which causes excessive perspiration, added fatigue and can lead to panic. Experts tell us to use layered clothing, topped off with a big parka or windbreaker. It's always easier to

Don't overload your boat to the point of affecting its stability. Duck hunters in particular are often loaded with waders, heavy parkas, shot guns, shell boxes, decoys and maybe a big retriever. Stash gear so it doesn't shift, and keep a low center of gravity when exiting, entering or underway in a loaded boat. Also, it would help to have some canned heat, matches in a waterproof container, some snacks, such as cookies, crackers, peanut butter sandwiches, etc., and a thermos of hot coffee or tea, fruit juice, milk, water or canned



remove clothing if you get too warm! If you should end up in the water, keep your head covered if at all possible, because the body loses heat most quickly through the head. If your boat should overturn, it is also a good idea to stay with it. Analyze your situation as calmly as possible no matter what predicament you find yourself in, and consider your options without panicking.

With the coming of the duck season, hunters using boats should consider some other safety measures.

sodas. Avoid alcoholic beverages.

Before you go, check the local weather forecasts for weather trends of the days you'll be out, and leave word with someone as to where you will be, other places you might go, and your planned route going and returning. The outdoors can be one of the most relaxing, exciting, and enjoyable places to be all rolled up into one, but it can also get dangerous and unforgiving if you aren't prepared or don't respect it. □

DECEMBER AFIELD

by Jack Randolph

If bass fishing were a baseball game, anglers would probably have their best slugging average in December. Year after year I have been constantly amazed at the number of big bass caught this month. Certainly, there are not as many big bass caught in December as there are in March and April, but if you consider the small number of anglers fishing in December the numbers are impressive.

Yet, no matter how you cut it, December is really not a bass fishing month. Hunters will tell you this is a hunting month, but there are plenty of striped bass fishermen out here to dispute the point. First let's talk about the hunting.

The U.S. Fish and Wildlife Service is predicting a record fall flight of ducks, something like 90 million birds. We have heard predictions of huge fall flights before, but without lots of nasty weather to run them this far south, we don't see the birds.

In 1994 we had a pretty good number of birds on the flyway, but balmy weather held them to the north. There were good numbers again last year and the severe weather sent many of them our way. With the right kind of weather this could happen again this year, making a banner year for the duck hunter. The last segment of the season opens December 9 and continues through the month and well into January.

If the duck hunter gets the weather he wants no one else will be pleased. Sloppy weather makes for difficult deer hunting and December is a great month for the deer hunter—at least the second part is.

For the deer hunter December starts slowly. The big western Virginia deer hunt closes November 30. In the west the bowhunters can hunt all month and on the 16th the muz-

zleloader hunters return to the western woods. In the east most of the counties are open to deer hunting all month. However, by the time the first part of December rolls around the initial rush of deer hunting on enthusiasm has waned. There are seldom a great many hunters in the woods during the first two weeks of the month, but this quickly changes as the antlerless deer seasons commence to open. The December deer hunt builds to a grand finale during the last week of the month.

If any fish owns December it has to be the striped bass—both the landlocked and the tidal water varieties. The tidal season opened October 17 and continues throughout this month, closing December 31.

It is expected that anglers will encounter huge numbers of striped bass in the bay. If the water temperatures hold above 46 degrees, December will be a stellar month, possibly the best month in recent history for tidal water stripers.

We can expect to find good striped bass action from Smith Point to the Chesapeake Bay Bridge Tunnel and possibly along the beach on the Eastern Shore. In the upper reaches of the bay chumming and trolling will be the favorite methods while along the Bridge Tunnel anglers will be casting bucktails and plugs around the islands and bridge abutments or trolling deep running plugs nearby.

Striped bass will still be in the tidal rivers, such as the Chickahominy, Appomattox, Pamunkey, Mattaponi, James, and the Rappahannock. Drifting with live minnows, trolling spoons, Sassy Shads, and deep running spoons, or casting Speed Shads, or Rat-L-Traps should produce plenty of two-fish limits.

In freshwater at such locations as

Waller Mill Reservoir, Western Branch Lake, Lake Prince, Lake Chesdin, Smith Mountain Lake, Claytor Lake, Buggs Island Lake, Lake Anna, and Lake Gaston look for striped bass taking live bait or deeply trolled lures. The bigger stripers are on the move this month and fish weighing 30 pounds or more are definite possibilities in several lakes.

In early December it is a good idea to keep an eye on the offshore fishing. When the wreck fishermen start complaining about catching a half a sea bass you know the big chopper bluefish have arrived. The migrating blues, heading south after a summer up north, often tarry long enough on Virginia's wrecks to offer some excellent action. Last year we had big blues well into the second week of December.

While the deer and duck hunters dominate the December hunt, the seasons are also open for most small game species. In the western part of the state the rabbit, squirrel, and grouse hunters almost have the woods to themselves, except, of course, for the turkey hunters, many of whom enjoy hunting the big birds with dogs. In the east the rabbit, squirrel, and quail hunters get in some licks, but their best moments come next month after the deer season has closed.

In freshwater this is a fine month for crappie fishing, providing it doesn't make ice. On the James and Rappahannock Rivers a select group of rugged anglers spend cold winter nights on the rivers in pursuit of big blue catfish that take baits as well in December as they do in the spring.

So there you have it. If you have trouble deciding whether to hunt or fish I can't blame you. In Virginia December has something for us all.

Virginia Wildlife

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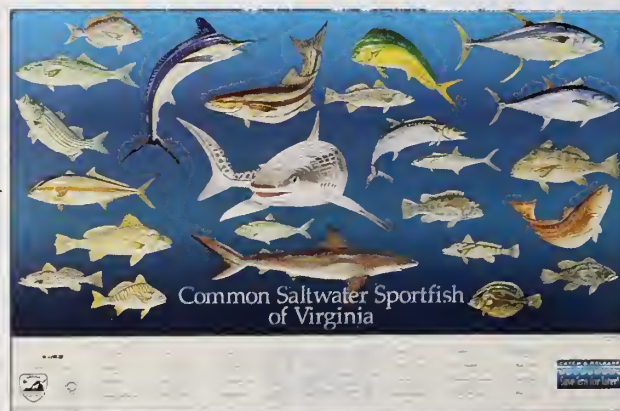


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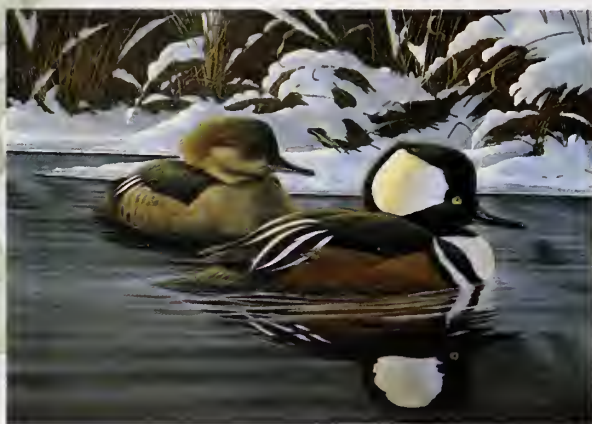
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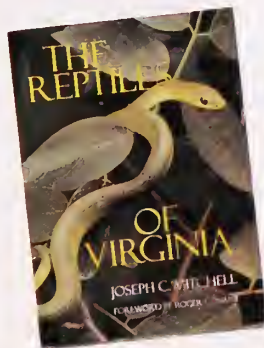
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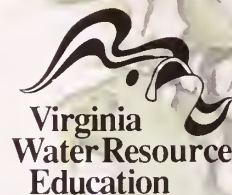
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Recipes

By Joan Cone

Totally Delicious Grouse

There is nothing more exciting than going afield with dog and gun in search of the wily ruffed grouse. But while it may be difficult to hunt and even more of a challenge to hit, ruffed grouse is the most delicious eating of all upland birds. It is not as dry as pheasant or quail and is so tender that it can be sauteed or roasted quickly.

MENU

Apple Tarragon Baked Grouse

Herbed Walnut Rice

Lemon Parsley Carrots

Spiced Cranberry Orange Mold

Grapefruit Cake Top Pudding

Apple Tarragon Baked Grouse

- 2 tablespoons flour
- 1 ¼ cups apple cider
- 2 tablespoons vegetable oil
- 1 tablespoon honey
- 1 teaspoon steak sauce
- ¼ cup sliced green onion
- ½ teaspoon tarragon leaves
- ¼ teaspoon salt
- ⅛ teaspoon pepper
- 4 ruffed grouse breast halves, skin removed
- 1 firm tart apple, cored

Preheat oven to 325°. Shake flour in regular size (10" x 16") Reynolds Oven Bag; place in 9 x 9 x 2-inch baking pan. Add cider; mix to dissolve flour. Add remaining ingredients except grouse and apple; turn bag to mix. Cut apple into 4 rings. Add grouse to bag; top with apple rings. Close bag with nylon tie and make 6 half-inch slits in top. Cook 30 minutes or until meat tests done. Serve sauce over grouse and apples. Makes 2 to 3 servings.

Herbed Walnut Rice

- ½ cup chopped onion
- ½ cup chopped celery
- ½ cup chopped walnuts
- ¼ teaspoon dried marjoram
- ¼ teaspoon dried thyme leaves
- ¼ teaspoon dried rosemary
- 1 tablespoon butter
- 3 cups cooked rice
- 2 tablespoons chopped fresh parsley

Cook onion, celery, walnuts and herbs in butter until vegetables are tender crisp. Stir in rice and parsley; heat through. Makes 4 servings.

Lemon Parsley Carrots

- 1 ½ pounds carrots, peeled and cut in ¼-inch slices
- Boiling water
- Grated peel and juice of ½ lemon
- 1 ½ tablespoons sugar
- 1 to 2 tablespoons margarine or butter
- 1 tablespoon minced parsley

In large saucepan, cook carrots, covered, in 1 inch of boiling water until just tender, 12 to 15 minutes. Drain and return carrots to saucepan. Add remaining ingredients and heat. Makes about 3 cups.

Spiced Cranberry Orange Mold

- 1 ½ cups boiling water
- 1 package (8-serving size) raspberry flavor gelatin
- 1 can (16 ounces) whole berry cranberry sauce
- 1 cup cold water
- 1 tablespoon lemon juice
- ¼ teaspoon cinnamon
- ⅛ teaspoon ground cloves
- 1 orange, sectioned, diced

Stir boiling water into gelatin in large bowl 2 minutes or until com-

pletely dissolved. Stir in cranberry sauce, cold water, lemon juice, cinnamon and cloves. Refrigerate about 1 ½ hours or until thickened. (A spoon drawn through gelatin leaves a definite impression.) Stir in orange. Spoon into 5-cup mold. Refrigerate 4 hours or until firm. Unmold. Makes about 5 cups or 10 servings.

Grapefruit Cake Top Pudding

- 1 grapefruit
- 3 eggs, separated
- ½ cup sugar
- 2 tablespoons margarine or butter, melted
- ¼ cup flour

Grate 1 tablespoon grapefruit peel; reserve. Over bowl, peel and section grapefruit; reserve ¼ cup juice. Arrange grapefruit sections in bottom of well-greased 1-quart casserole. Beat egg whites to soft peak stage. Gradually add ¼ cup sugar; continue beating until stiff, but not dry. With same beater, beat egg yolks with grapefruit juice and margarine. Gradually add flour and remaining ¼ cup sugar; beat until smooth. Add grapefruit peel. Fold in beaten egg whites. Pour in casserole over grapefruit sections. Set casserole in shallow pan filled with ½ inch hot water. Bake at 325° for 45 minutes or until lightly brown. Serve at room temperature or chilled. Top with whipped topping, if desired. Makes 4 servings. □

To enjoy Joan Cone's game cooking course on the Internet, enter the following code.
<http://www.wmbg.com/mindstore/cook>

Index to Virginia Wildlife

1996, Volume 57, Numbers 1-12

BIRDS

- April's Wandering Warblers, *Knuth* Apr., p. 18
Harbingers of Spring, *Knuth* Mar., p. 21
Virginia's Little Brown Birds, *Knuth* July, p. 21

BOATING SAFETY

- Beware of Hypothermia, *Antozzi* Dec., p. 34
Courtesy Afloat, *Antozzi* July, p. 31
Free Boating Courses Available, *Antozzi* Mar., p. 33
How To Enjoy Safe Boating More Than Ever, *Antozzi* Oct., p. 30
Now's The Time to Winterize, *Antozzi* Nov., p. 30
River Travel, *Antozzi* June, p. 32
Sailing is Quiet Fun, *Antozzi* Sept., p. 33
Virginia Boating May, p. 14

FISHING

- 1996 Trout Guide Jan., p. 8
A Sure Thing, *Gooch* Apr., p. 14
Bait and Switch, *Walker* Apr., p. 26
For Fishing Variety Take to the River, *Gooch* June, p. 14
Lake Moomaw's Trophy Trout, *Almy* Mar., p. 24
Nymphing for Smallmouth, *Murray* May, p. 37
Pop The Cork For Smallmouth, *Murray* Aug., p. 24
Smallmouth Streamer Tactics, *Murray* July, p. 16
The Hotter The Better, *Eades* Sept., p. 22
The Hunt for October Smallmouth, *Ingram* Oct., p. 12
The New Sunfish in Town, *Eades* Apr., p. 22
Three Forks of the Holston, *Gooch* Mar., p. 15
Tips for Chain Pickerel, *Almy* June, p. 26
Trout Fishing in the Shenandoah National Park, *Murray* Mar., p. 4

HUNTING

- A Hunter's Snow, *Gooch* Dec., p. 12
A Primer for Spring Gobbler Hunters, *Almy* Apr., p. 4
Beagles and Bunnies, *Gooch* Nov., p. 4
Before The Hunt Sight-in Your Rifle, *Reel* Oct., p. 26
Doves When the Corn Ain't Cut, *Gooch* Aug., p. 19
Handicapped Hunters Get a Hand from the Department,
Hart Oct., p. 25
Hunting Without Dogs, A Silent Art, *Gooch* Oct., p. 8
In The Thick of It, *Hart* Nov., p. 22
Late Season Grouse, *Almy* Dec., p. 21
Moon Madness, *Badger* Aug., p. 9
November's Magic Day, *Almy* Sept., p. 18
Teal and Wood Ducks, a Colorful Beginning, *Badger* Oct., p. 16
Tips for Fall Turkey Hunting, *Almy* Nov., p. 17
Virginia's Hottest New Deer Season, *Quaiff* Oct., p. 20
Will it be a Banner Season for Waterfowl?, *Badger* Dec., p. 16

MISCELLANEOUS

- A Burning Dilemma for Wildlife, *Mitchell* Apr., p. 9
April Afield, *Randolph* Apr., p. 34
August Afield, *Randolph* Aug., p. 34
Birding by Boat, *Badger* May, p. 9
BOW "Becoming an Outdoors Woman", *Scala* Dec., p. 4
Board Member Catharine Tucker Hunts Spring Gobblers,
Hickoff Aug., p. 30
Clinch Mountain and Hidden Valley Habitat for Wildlife . . Feb., p. 12
Cooperative Agreements Good for Anglers and Cattlemen,
Belton Feb., p. 33
December Afield, *Randolph* Dec., p. 35
Fisheries Feb., p. 24
Game Wardens Serving Virginia With Pride, *Randolph* July, p. 4
June Afield, *Randolph* June, p. 33
July Afield, *Randolph* July, p. 32
K-9 Coach, *Newton* Aug., p. 4
Making It Happen, *Barnett* Sept., p. 14
Marion Trout Hatchery and Buller Fish Cultural Station . . Feb., p. 28

- Mudbugs, A Swampy Success, *Kastetter* Aug., p. 14
Mulberries, Stripers, Trilliums, and Things, *Randolph* May, p. 47
Northumberland County's Fourth Annual Shoreline Clean-Up,
Newton Aug., p. 30
November Afield, *Randolph* Nov., p. 31
October Afield, *Randolph* Oct., p. 31
Preparation is Key for Opening Day, *Mauyer* Nov., p. 29
September Afield, *Randolph* Sept., p. 32
Shed Antlers: Nature's Lost and Found, *Duncan* Mar., p. 10
The Art of the Wooden Canoes, *Newton* May, p. 4

PHOTOGRAPHY

- "A Photographer's Holiday Wish List", *Richardson* Nov., p. 32
"A Remote Possibility", *Richardson* Oct., p. 32
Betting on Bunnies, *Richardson* Apr., p. 35
The WOW of Color, *Richardson* July, p. 30
Ticking Away the Summer, *Richardson* Aug., p. 35
Your Code of Ethics: What is the Cost of a Photograph
Richardson Mar., p. 34
Your Third Magazine Assignment: The Power of Color,
Richardson May, p. 46
"Your Third Magazine Assignment: The Results"
Richardson Jan., p. 34

PICTORIAL

- Southwest Virginia A Mountain Treasure, *Knuth* Feb., p. 4

PLANTS

- Butterfly Watching, *Hugo* July, p. 34
Greenbrier: Thorny Food for Wildlife, *Hugo* Jan., p. 32
Invasion of the Habitat Snatchers, *Hugo* June, p. 18
Jack-in-the-Pulpit, *Hugo* May, p. 44
Milkweed, *Hugo* Sept., p. 30
Mulberry, *Hugo* June, p. 34
Partridgeberry, *Hugo* Aug., p. 33
Serviceberry, *Hugo* Apr., p. 32
Virginia Pine, *Hugo* Mar., p. 32
Witch Hazel, *Hugo* Oct., p. 29

REPTILES & AMPHIBIANS

- Does It Bite?, *Mitchell* June, p. 9
Frozen Frogs and Cold Salamanders, *Mitchell* Dec., p. 26

RESOURCE MANAGEMENT

- A Powerful Wetland, *Keyser* Oct., p. 4
FLOOD, *Brandt* Jan., p. 4
Fly North...Forget It!, *Costanzo* Sept., p. 4
Forest Stewardship Program: Habitat Help For Landowners,
Sausville Nov., p. 8
In Search of Trophy Bass, *Kittrell, Jr.* June, p. 4
Multiple-Use, *Simpson* Sept., p. 9
Quality Deer Management on Small Acreage, *Barnett* Nov., p. 13
Urban Fishing Moves Forward, *Kane* Jan., p. 30
Wild About Turkeys, *Norman* May, p. 41

WILD FOOD PREPARATON

- A Festive Venison Dinner, *Cone* Nov., p. 33
All Bass Are Delicious, *Cone* May, p. 45
Boneless Panfish Recipes, *Cone* Mar., p. 31
Brookies, Browns and Rainbows—All Good Eating, *Cone* . . Jan., p. 33
Doves—Hard to Hit, Fun to Cook, *Cone* Sept., p. 29
Pheasant For Winter Dining, *Cone* Feb., p. 34
Shore Lunch, *Cone* July, p. 33
Smoke Fish On Your Outdoor Grill, *Cone* Aug., p. 32
Snapping Turtles Aren't Pretty—But They Are Delicious,
Cone June, p. 35
Spring Gobbler Dinner, *Cone* Apr., p. 33
Totally Delicious Grouse, *Cone* Dec., p. 38
Wood Ducks Are Always A Treat, *Cone* Oct., p. 33

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